The Prevalence of Ovarian Varices in Patients with Endometriosis

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Background: To study the possible association between endometriosis and ovarian varices. These diseases manifest with similar symptomatologies and the hormone estradiol is implicated in both.

Methods: The sample consisted of 48 female patients between the ages of 18 and 50 years old. There were 25 patients who had been diagnosed with endometriosis. Fifteen had been confirmed by surgery and histopathology, and 10 by nuclear magnetic resonance. There were also 23 patients without endometriosis who were considered to be the control group. The diagnosis of ovarian varicose veins were made through ultrasound system with endovaginal transducer of 4 to 8 MHz. This study was conducted from May 2013 to September 2014. The researchers attempted to identify the anechoic, circular, linear, and non-pulsatile structures in the broad ligament of the uterus. Varices with dilation of equal to or greater than 5 mm in the longitudinal cut, with tortuous veins with reflux in the adnexal region.

Results: The prevalence of ovarian varices in patients with endometriosis was 80%, whereas the control group was only 26.1%. The elevated percentage of ovarian varices in patients with endometriosis is highly significant, with a difference of 53.9% and 95% confidence interval of 30%–78%. The criterion for the determination of significance that we adopted was the level of 5%. The statistical analysis was processed using the statistical software SAS system, version 6.11 (SAS Institute, Inc., Cary, North Carolina).

Conclusions: Our results suggest that ovarian varices may play a very important role in the physiopathology of endometriosis. Ovarian varices may evolve with oxidative stress in the function of the ovary, provoking an imbalance in its genetic, hormonal, and immunologic aspects and provoking the chronic inflammatory process particular to endometriosis.